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SPECIFICATION

AN SOI WAFER AND A METHOD FOR

PRODUCING AN SOI WAFER

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AND IS A CONTINUATION OF US APPLICATION 10/204,935 FILED ON 8/27/2002.*  
Technical Field

The present invention relates to an SOI wafer, more particularly, to an SOI wafer having extremely high electrical reliability even in the case that a thin silicon active layer is formed, and to a method for producing such an SOI wafer.

Background Art

Conventionally, as a substrate for a device, an SOI wafer wherein a silicon active layer (an SOI layer) is formed on a support substrate has been widely utilized. As a method for producing such an SOI wafer, for example, it is known that a bonding method in which two silicon wafers are bonded together via an oxide film. In ion implantation delamination method which is one of bonding methods, an oxide film (an insulator layer) is formed on a surface of a silicon wafer (a bond wafer) to be a silicon active layer or a base wafer to be a support substrate, and an ion-implanted layer is formed inside the bond wafer by implanting ions such as hydrogen from one side